

**THATCHER COMPANY MATERIAL SAFETY DATA SHEET****PRODUCT: ALUMINUM SULFATE SOLUTION****Page 1 of 1**MSDS Date: November 11, 2003
Emergency Contact: 1-800-424-9300**SECTION I****PRODUCT NAME:** Aluminum Sulfate Solution**SYNONYMS:** Alum**CHEMICAL NAME:** Aluminum Sulfate Solution**FORMULA:** $Al_2(SO_4)_3$ **CHEMICAL FAMILY:** Metal salts**MOLECULAR WEIGHT:** 342.14**DOT SHIPPING INFORMATION*:** Other regulated substance, Liquid, n.o.s.
(Aluminum sulfate), 9, NA 3082, PG III
RQ = 5000 lbs
* (Not regulated if less than 5000 lbs)**SECTION II - HAZARDOUS INGREDIENTS**

This material contains no ingredients which are known by Thatcher Company to be hazardous unless listed below.

HAZARDOUS MATERIAL	CAS NUMBER	w/w %	EXPOSURE LIMITS IN AIR
Aluminum sulfate	10043-01-3		None determined

The specific identity of some ingredients may be withheld for confidential business purposes. However, all known potential health effects from exposure to these ingredients are being addressed.

SECTION III - PHYSICAL DATA**BOILING POINT (F):** Approx. 213**SPECIFIC GRAVITY:** 1.34**VAPOR PRESSURE (mm Hg):** Essentially water**% VOLATILE, BY VOLUME:** Abt 70%**VAPOR DENSITY (air = 1):** Essentially water**EVAPORATION RATE:** Unknown**SOLUBILITY IN WATER:** Complete**APPEARANCE AND ODOR:** Colorless to light yellow liquid.**SECTION IV - FIRE AND EXPLOSION DATA****FLASH POINT:** Nonflammable**FLAMMABLE LIMITS:**

Lel: N/A Uel: N/A

EXTINGUISHING MEDIA:

Use any.

SPECIAL FIRE-FIGHTING PROCEDURES:

None.



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UNUSUAL FIRE AND EXPLOSION HAZARDS:

None.

SECTION V - REACTIVITY DATA

STABILITY: Stable

HAZARDOUS POLYMERIZATION:

Will not occur.

CONDITIONS OR MATERIALS TO AVOID:

None.

HAZARDOUS DECOMPOSITION PRODUCTS:

None.

SECTION VI - HEALTH HAZARD DATA

CARCINOGENIC LISTING:

NTP: No ingredients listed in this section.

IARC MONOGRAPHS: No ingredients listed in this section.

OSHA 29 CFR 1910: No ingredients listed in this section.

ENTRY ROUTES & EFFECTS OF OVEREXPOSURE:

Contact: Can be irritating to skin, and severely irritating to eyes.

Ingestion: Excessive amounts can produce general symptoms of nausea, including dizziness, abdominal cramps and vomiting.

STATEMENT OF PRACTICAL TREATMENT:

Contact: Flush exposed area thoroughly with water. For eyes, flush with cool water for at least 15 minutes and get medical attention.

Ingestion: If conscious, give several glasses of water or milk. **Do not** induce vomiting. Call a physician at once!

SECTION VII - SPECIAL PRECAUTIONS

HANDLING AND STORAGE PRECAUTIONS:

Avoid contact with skin and eyes. Do not take internally. Wash thoroughly after handling. Store in a cool, dry area away from direct contact with other chemicals.

STEPS TO BE TAKEN IF MATERIAL SPILLS OR LEAKS:

Wear proper safety equipment. Dike the spill and recover as much as possible into drums. Flush residue to sewer with large amounts of water (ONLY if permitted by all applicable regulations).



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WASTE DISPOSAL METHOD:

Not an EPA hazardous waste. Dispose of in landfill or other appropriate disposal facility. Comply with all local, state and federal regulations.

SECTION VIII - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION:

None normally required.

VENTILATION:

Maintain adequate ventilation.

EYE PROTECTION:

Chemical goggles.

SKIN PROTECTION:

Rubber gloves, long-sleeved shirt.

OTHER PROTECTIVE EQUIPMENT:

As needed to prevent contact with eyes and skin.

ACGIH = American Conference of Governmental Industrial Hygienists

CL = Ceiling Level

IARC = International Agency for Research on Cancer: Monographs

OSHA = Occupational Safety and Health Administration

N/A = Not Applicable

NTP = National Toxicology Program: Annual Report on Carcinogens

PEL = Permissible Exposure Level (OSHA)

TLV = Threshold Limit Value (ACGIH)

TWA = Time Weighted Average over 8 Hours

STEL = Short Term Exposure Limit (ACGIH)

ND = Not Determined

This information is, to the best of our knowledge, accurate but may not be complete. THATCHER COMPANY furnishes this information in good faith, but without warranty, representation or guarantee of its accuracy, completeness, or reliability.